

REMARKS

Request for Reconsideration

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remains of the opinion that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the above amendments to the claims and the following remarks.

Claims Status

Claims 1-31 are pending in this Application.

Claim 1 has been amended herein to recite that the sensor element is on one side of the flexible carrier material and the strip conductors are on the other side of the flexible material. Probably, the best support for this limitation can be found in the drawings. For example, on Figure 1, sensor element 19 is on the underside of the element and the strip conductors 4 are on the other side of the element. It should also be noted that Claims 2 and 3 specify which side of the flexible carrier the various components are. Thus, no new matter has been added by way of these amendments.

It is also respectfully submitted that the amendments to Claim 1 should be entered since it is deemed that these were inherent in the claim although not explicitly set forth. Furthermore, the amendment distinguishes Claim 1 over the Prior Art and, therefore, should be entered, even though this is a Final Office Action.

Prior Art Rejection Against Claim 1 and its Dependent Claims

The Examiner put forward two Prior Art rejections against Claim 1 and its dependent claims, namely:

- (1) Claims 1-3, 9, 10, 15, 16, 19-21 and 23-27 had been rejected as being unpatentable over a combination of Takizawa and Bierhoff; and
- (2) Claims 4, 7, 8, 11-14, 17, 18 and 22 had been rejected as being unpatentable over a combination of Takizawa, Bierhoff and McDearmon.

The Examiner recognized that the claim limitation of "the sensor element is connected by signaling technology via contacting elements to the strip conductor, the contacting element being formed in the flexible carrier material by means of through hole plating element" was not present in either Takizawa or McDearmon. For this limitation, the Examiner turned to Bierhoff. In Bierhoff, the Examiner pointed to detectors 34, contacting

elements 68 and through holes 51, 52 with plating element 50. As the Examiner can see in Bierhoff and, specifically, Figure 1, detectors 34 and contact elements 68 are on the same side of the plate 5. Thus, the sensor and the strip conductors in Bierhoff are not on opposite sides of the carrying material. Furthermore, it can be seen that strip conductors 68 and sensors 34 are not connected to one another by means of a through hole plating element. Sensors 34 are connected directly to strips 68 by leads 17, 18 as shown in Figure 1. Plating element 50 does not extend through hole 51, 52 so as to connect strip conductors 6 and 8 to elements 3 and 4.

Neither Takizawa nor McDearmon provide the missing element from Bierhoff and, thus, it is respectfully submitted that Claim 1 and its dependent claims are patentable over these three cited references taken alone or on combination.

Prior Art Rejection Against Claim 5 and its Dependent Claims

The Examiner put forward two Prior Art rejections against Claim 5 and its dependent claims, namely:

- (1) Claims 5, 6, and 29-31 are rejected as being unpatentable over a combination of Takizawa and Tward; and

(2) Claim 28 is rejected as being unpatentable over a combination of Takizawa, Tward and McDearmon.

The Examiner recognizes that neither Takizawa nor McDearmon teach the limitation of sensing element as capacitor with at least two plate-like conductor areas which are opposite one another and separated from one another by the flexible carrying material wherein the flexible carrier material is the dielectric. For this limitation, the Examiner turns to Takizawa and cited the plate-like conductor as B', C', B'' and C'' and cited that material 18 was a flexible carrier material.

Respectfully, the Examiner has misread Tward because Tward does not teach or suggest the material 18 is flexible. At column 6, lines 15-16, Tward teaches that dielectric material 15 and 18 can be ceramic, glass or plaster. Nowhere does Tward teach that the material is flexible. Furthermore, it is submitted that if Tward's material were flexible, it would not operate properly. The transducer of Tward specifically wants to fix the location of plates B', B'', C' and C'' because plate A and A'' flex with pressure. Thus, it is imperative for the other four plates to maintain a fixed position while plates A' and A'' flex so as to vary the distance thereby varying the capacity and measuring the differences in pressure.


Respectfully, none of the three references taken alone or in combination teach a capacitor being separated by flexible material.

As the Examiner should appreciate, one of the unique aspects of the present Invention is the fact that the flexible material does separate the capacitor plates thereby allowing the data capturing system to conform around the bearing.

Conclusion

In view of the foregoing, it is respectfully submitted that the Application is in condition for allowance and such action is respectfully requested.

Should any fees or extensions of time be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit account #02-2275.

Respectfully submitted,
LUCAS & MERCANTI, LLP
By: 
Donald C. Lucas, Reg. # 31,275
(Attorney for Applicant)
475 Park Avenue South
New York, New York 10016
Tel. # (212) 661-8000

DCL/mr